

# Frequency Mixer

## RMS-25MH+

Level 13 (LO Power +13 dBm) 5 to 2500 MHz



CASE STYLE: TT240

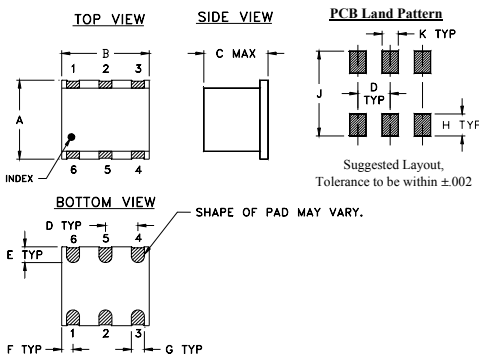
### Maximum Ratings

Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power	200mW
IF Current	40mA
Permanent damage may occur if any of these limits are exceeded.	

### Pin Connections

LO	1
RF	4
IF	5
GROUND	2,3,6

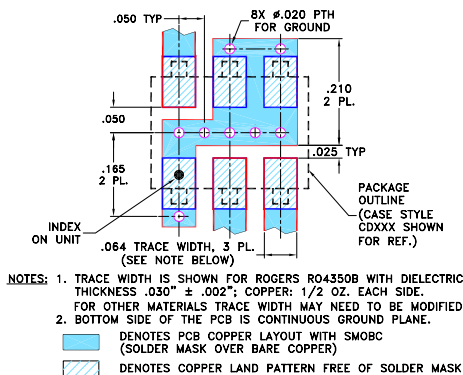
### Outline Drawing



### Outline Dimensions (inch/mm)

A	B	C	D	E	F
.250	.31	.20	.100	.050	.055
6.35	7.87	5.08	2.54	1.27	1.40
G	H	J	K	wt	
.040	.070	.270	.050	grams	
1.02	1.78	6.86	1.27	0.50	

### Demo Board MCL P/N: TB-03 Suggested PCB Layout (PL-052)



### Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
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### Features

- excellent L-R isolation, 32 dB typ.
- conversion loss, 7.0 dB typ.
- small size, 0.25"x0.31"x0.2"

### Applications

- cellular
- satellite distribution
- GPS

### Electrical Specifications

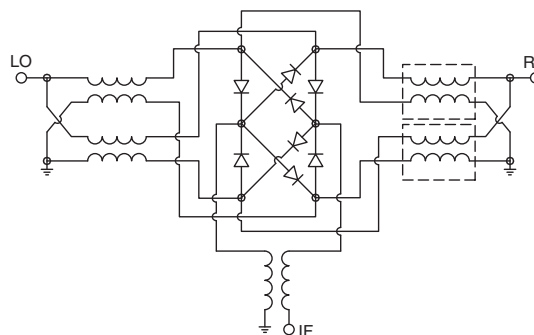
FREQUENCY (MHz)	CONVERSION LOSS (dB)				LO-RF ISOLATION (dB)						LO-IF ISOLATION (dB)						IP3 at center band (dBm)	
	LO/RF	IF			L		M		U		L		M		U			
$f_L - f_U$	$\bar{X}$	$\sigma$	Max.	Total Range Max.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.	Typ.	Min.		
5-2500	5-1500	7.0	.20	8.5	9.8	54	28	32	23	32	20	34	23	32	25	28	17	17

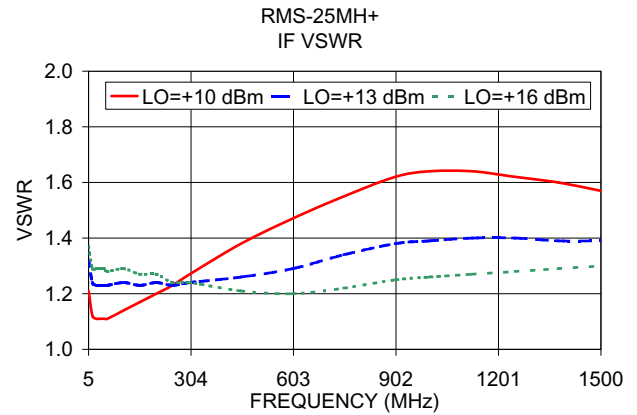
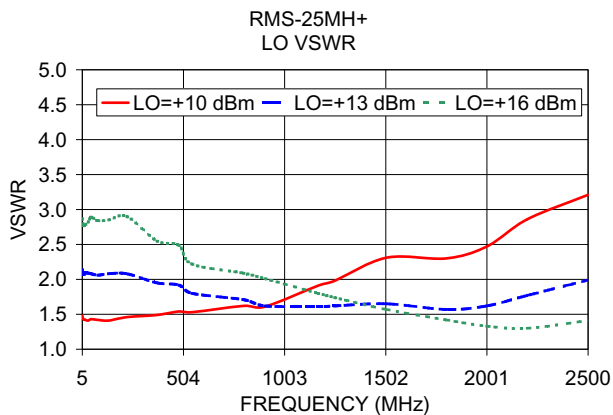
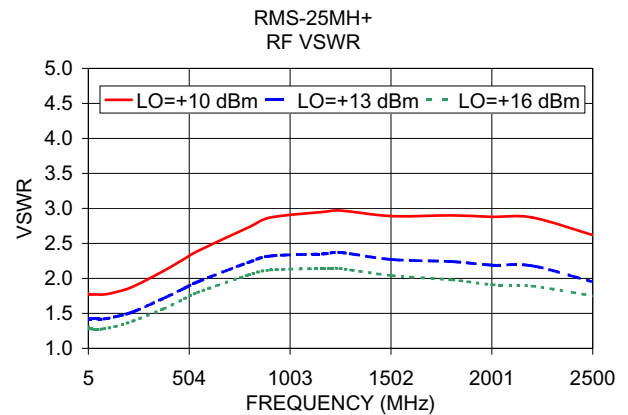
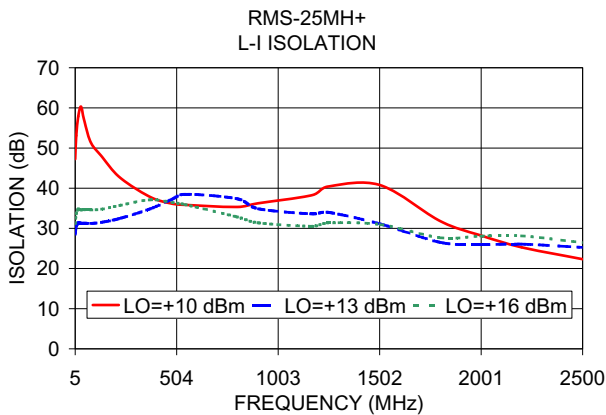
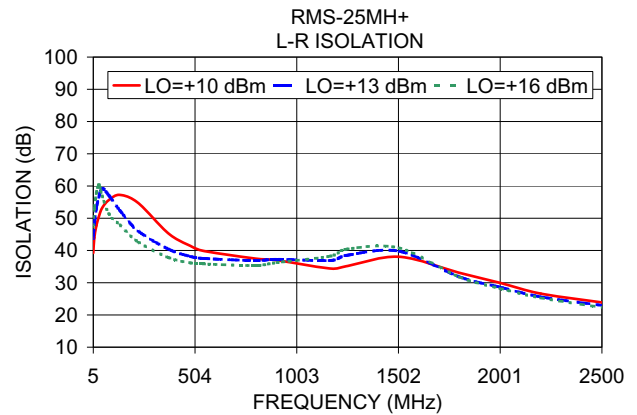
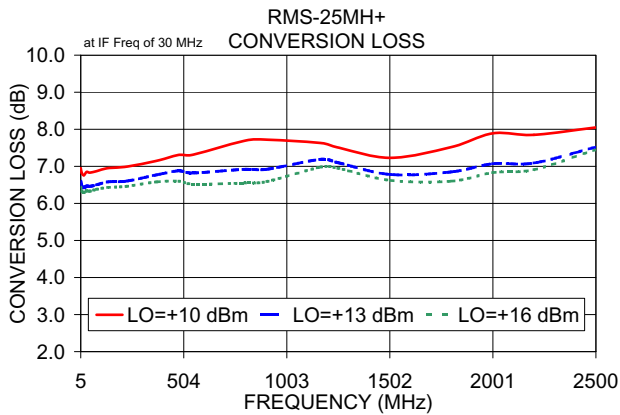
1 dB COMP.: +9 dBm typ.  
 L = low range [ $f_L$  to  $10 f_L$ ]  
 M = mid range [ $10 f_L$  to  $f_U/2$ ]  
 U = upper range [ $f_U/2$  to  $f_U$ ]

### Typical Performance Data

Frequency (MHz)	Conversion Loss (dB)		Isolation L-R (dB)		Isolation L-I (dB)		VSWR RF Port (:1)		VSWR LO Port (:1)	
	RF	LO	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm	LO +13 dBm
5.00	35.00	6.60	43.66	31.16	1.43	2.14				
10.10	40.10	6.47	48.02	33.66	1.42	2.07				
20.18	50.18	6.42	53.20	34.80	1.42	2.09				
33.51	63.51	6.47	56.82	34.60	1.42	2.09				
49.03	79.03	6.46	59.20	34.63	1.42	2.08				
81.42	111.42	6.50	57.10	34.59	1.42	2.06				
135.23	165.23	6.58	52.43	34.78	1.45	2.08				
224.60	194.60	6.60	46.08	35.72	1.52	2.08				
373.01	343.01	6.77	40.43	37.11	1.71	1.95				
480.71	450.71	6.88	38.16	36.46	1.86	1.92				
545.72	515.72	6.82	37.54	35.91	1.95	1.80				
798.38	768.38	6.92	36.87	32.89	2.23	1.71				
906.34	876.34	6.92	37.27	31.38	2.32	1.62				
1168.03	1138.03	7.19	36.90	30.53	2.35	1.61				
1250.00	1220.00	7.10	38.52	31.35	2.37	1.62				
1505.28	1475.28	6.78	39.76	30.96	2.27	1.65				
1800.00	1770.00	6.85	31.84	27.67	2.24	1.57				
2000.00	1970.00	7.07	28.62	28.09	2.19	1.62				
2200.00	2170.00	7.09	25.62	28.13	2.18	1.77				
2500.00	2470.00	7.52	22.96	26.44	1.95	1.99				

### Electrical Schematic





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